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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,054	09/05/2003	F. Tim Emery	2003P12079US	9388

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Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER

MAYO III, WILLIAM H

ART UNIT	PAPER NUMBER
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2831

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/656,054

Applicant(s)

EMERY, F. TIM

Examiner

William H. Mayo III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 20-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11-12, 14, 16-17, and 19(second) is/are rejected.
- 7) ☒ Claim(s) 9-10, 13, 15, 18-19(first) is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>09/05/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1-19, in the reply filed on January 6, 2006 is acknowledged.

Information Disclosure Statement

2. The information disclosure statement filed September 5, 2003 has been submitted for consideration by the Office. It has been placed in the application file and the information referred to therein has been considered.

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

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4. The abstract of the disclosure is objected to because it contains the improper spelling of the term "Non-stick". The applicant should replace the term with --non-stick--. Correction is required. See MPEP § 608.01(b).

5. The disclosure is objected to because of the following informalities: Throughout the specification, the applicant utilizes the term "Non-stick", which is the improper spelling. The applicant should replace the term with --non-stick--.

Appropriate correction is required.

Claim Objections

6. Claims 5, 15, and 19-20 are objected to because of the following informalities: Claim 5 contains the misspelled terms "striping patter". The applicant should correct the terms with the correct spellings. Claims 15 & 20 are missing and therefore are objected to. There are two claim 19, and the examiner will designate them as 19(first) and 19 (second). Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 1-8, 11-12, 14, 16-17, and 19(second) are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Own Admission of Prior Art (herein referred to as AOAPA) in view of Tierney (Pat Num 3,183,142). AOAPA discloses that insulating tapes (Figs 1-3) are commonly utilized for insulating electrical conductors (see Background of the Invention Section). Specifically, with respect to claim 1, AOAPA discloses an insulating tape (Fig 3) comprising an inner conductive layer (44), an outer conductive layer (46), and a slip layer (41) located between the inner conductive layer (44) and outer conductive layer (46), wherein the slip layer (41) allows for a difference of movement between the inner conductive layer (44) and the outer conductive layer (46) without damage to the insulating tape (Paragraph 9), a conductive interweave (42) interwoven with the slip layer (41), wherein the porosity of the slip layer (41) is sufficient to allow an impregnation of a resin through the slip layer (41) to the inner conductive layer (44, paragraph 11), and wherein the slip layer (41) is wrapped around the electrical conductor (13) in an overlapping manner that allows the conductive interweave to maintain contact between the inner conductive layer (44) and the outer conductive layer (46, Fig 3). With respect to claim 2, AOAPA discloses that the thickness of the slip layer (41) is about 11.5 mils (paragraph 10). With respect to claim 3, AOAPA discloses that the insulating tapes (Fig 3) are impregnated with a resin after being wound around the electrical conductor (13, paragraph 11). With respect to claim 4, AOAPA discloses that the slip layer (41) and the conductive interweave (42) are wound around the electrical conductor (13). With respect to claim 5, AOAPA discloses that the slip layer (41) produces

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vertical stripping pattern perpendicular to the axis of the electrical conductor (13, Fig 3). With respect to claim 11, AOAPA discloses that the slip layer (41) and conductive interweave (42) are capable of being wound around the electrical conductor (13). With respect to claim 14, AOAPA discloses a slip layer (41) with a conductive interweave (42) comprising a non stick material (i.e. mica) and a conductive interweave (42) that are interwoven in a manner that the conductive interweave (42) transverses the slip layer (41), wherein the conductor interweave (42) is exposed on both sides of the slip layer (41, Fig 3), wherein the porosity of the slip layer (41) is sufficient to allow an impregnation of a resin through the slip layer (41) to the inner conductive layer (44, paragraph 11). With respect to claim 16, AOAPA discloses that the thickness of the slip layer (41) is about 11.5 mils (paragraph 10).

However, AOAPA doesn't necessarily disclose the slip layer comprising a non stick material coated porous glass tape (claims 1 & 14), nor the slip layer being 2-5 mils (claims 2 & 16), nor the ratio of the conductive interweave to the slip layer being 1:1-1:8 (claims 6 & 14), nor the ratio of the conductive interweave to the slip layer being 1:2-1:4 (claim 7), nor the slip layer being 30 mm wide (claims 8 & 17), nor the difference being up to 0.5 inches (claim 12), nor the non stick material being TEFLON (claim 19 (second)).

Tierney teaches an insulating tape that may be utilized as a conductor insulation possessing high electrical resistance to heat, moisture, lubricating oils, and other common sources of failure of electrical insulation (Col 6, lines 10-17), thereby being able to withstand considerable abuse without danger of breakage

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(Col 6, lines 1-4). Specifically, with respect to claim 1, Tierney teaches that the slip layer (20) comprising layers (21 & 22) of aligned glass filaments unified with and adhered to each other by a thermosetting resin (i.e. glass tape). With respect to claims 8 & 17, Tierney teaches that slip layer (20) may be about 30 mm wide (i.e. 3/8-3 inches incorporates 30 mm, Col 3, lines 62-65). With respect to claim 19 (second), Tierney discloses that the slip layer may be made of TEFLON (Col 3, lines 35-40).

With respect to claims 1, 8-9, 17, and 19(second), it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the insulated wire of AOAPA to comprise the glass slip layer configuration as taught by Tierney because Tierney teaches that such a configuration provides an insulating tape that may be utilized as a conductor insulation possessing high electrical resistance to heat, moisture, lubricating oils, and other common sources of failure of electrical insulation (Col 6, lines 10-17), thereby being able to withstand considerable abuse without danger of breakage (Col 6, lines 1-4).

With respect to claims 6-7, 12, and 14, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the ratio of the conductive interweave to the slip layer being 1:1-1:8 or the ratio of the conductive interweave to the slip layer being 1:2-1:4, or the difference of movement being up to 0.5 inches, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the

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optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Allowable Subject Matter

9. Claims 9-10, 13, 18-19(first) are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: This invention deals with a tape layer comprising a conductive interweave being approximately 15 mm wide (claims 9 & 18). This invention also deals with a tape layer comprising a conductive interweave having an resistance of approximately 200 ohms per square (claims 10 & 19(first)). This invention also deals with a insulating tape maintaining physical properties at temperatures of 155°C (claim 13).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They are Kuribayashi et al (Pat Num 6,194,665), Baumann et al (Pat Num 2002/0046875), Beddows (Pat Num 3,488,537), Bronnvall et al (Pat Num 3,470,045), Larsh (Pat Num 3,028,266), Cope et al (Pat Num 4,160,926), and Johnston et al (Pat Num 4,760,296), all of which disclose insulating tapes for electrical conductors.

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Communication

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (571)-272-1978. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William H. Mayo III
Primary Examiner
Art Unit 2831

WHM III
March 16, 2006